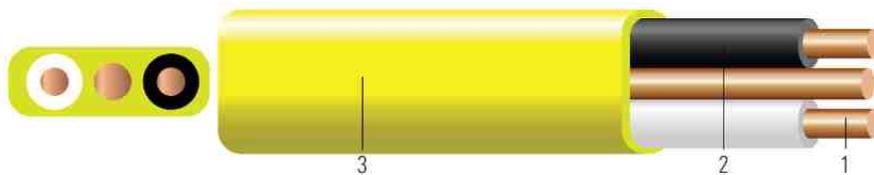


NMD90 300V – Copper Conductors



APPLICATION

NMD90 cables may be used for both exposed work in dry locations or concealed work in dry or damp locations. The maximum allowable conductor temperature is 90°C. The minimum recommended installation temperature is -25°C for two-conductor cables and -10°C for three-conductor cables (with suitable handling procedures). Material should be properly stored above 0°C for 24 hours prior to installation. The maximum voltage rating for all intended applications is 300 volts.

Consult the Canadian Electrical Code for further information related to applications

CHARACTERISTICS

Voltage Rating U_0/U (Um)

300V

Temperature Rating

-25°C to 90°C

STANDARDS

ASTM B3 Soft or Annealed Copper Wire

- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- CSA C22.2 No. 48 non-metallic sheathed cable
- ICEA S-95-658 (NEMA WC70) Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy
- FT1 Flame Test (1,706 BTU/Hr nominal - Vertical Wire Flame Test)

THE CABLE TEST

We have world-class testing facility, and made rigorous testing regime, every meter of cable before leaving the factory must go through strict testing, testing qualified products will be shipped to customers, effectively ensure product quality and meet customer requirements.

SUSTAINABILITY COMMITMENT

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CONSTRUCTION

Conductor

Bare copper per ASTM B3. Sizes #14 AWG - #10 AWG are solid. Sizes #8 AWG - #2 AWG are Class B compressed stranded per ASTM B8

Insulation

All phases are insulated with Polyvinyl Chloride (PVC) with Nylon Sheath

Jacket:

Polyvinyl Chloride (PVC) jacket

Sheath Colour

- 2/C: Black, White
- 3/C: Black, White, Red

NMD90 300V – Copper Conductors

Weights and Measurements

Cond. Size AWG/ Kcmil	Conductor Number	Diameter Over Conductor (inch)	Conductor Stranding	Thickness Insulation (mils)	Ground Size (No.xAWG)	Thickness Jacket (mil)	Approx. OD (inch)	Weight (lbs/1000ft)	Copper Weight Overall (lbs/1000ft)
14	2	0.064	Solid	35	1x14	30	0.196x0.396	37	69
14	2	0.064	Solid	35	1x14	30	0.196x0.396	37	69
14	2	0.064	Solid	35	1x14	30	0.196x0.396	37	69
14	3	0.064	Solid	35	1x14	30	0.388	50	90
12	2	0.08	Solid	35	1x14	30	0.213x0.430	51	88
12	2	0.08	Solid	35	1x14	30	0.213x0.430	51	88
12	3	0.08	Solid	35	1x14	30	0.428	72	118
10	2	0.101	Solid	35	1x12	30	0.234x0.488	82	124
10	2	0.101	Solid	35	1x12	30	0.234x0.488	82	124
10	3	0.101	Solid	35	1x12	30	0.479	115	168
8	2	0.141	7	40	1x10	45	0.316x0.694	133	210
8	3	0.141	7	40	1x10	45	0.635	186	283
6	2	0.177	7	50	1x8	45	0.374x0.800	213	339
6	3	0.177	7	50	1x8	45	0.775	297	433
4	2	0.225	7	50	1x8	60	0.839	311	463
3	2	0.252	7	50	1x6	80	0.937	410	610
3	3	0.252	7	50	1x6	80	1.029	574	822
2	3	0.282	7	50	1x6	80	0.991	702	862

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NMD90 300V – Copper Conductors

Electrical and Engineering Data

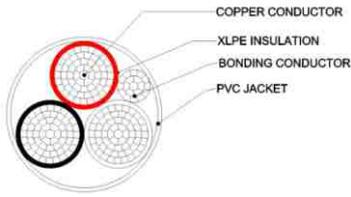
Cond. Size AWG/ Kcmil	Conductor Number	Min. Bend Radius (Inches)	DC Resistance at 25°C (Ω /1000ft)	AC Resistance at 75°C (Ω /1000ft)	Inductive Reactance @ 60Hz (Ω /1000ft)	Allowable Ampacity Raceway 75°C (Amp)	Allowable Ampacity Raceway 90°C (Amp)
14	2	1.6	2.631	3.17	0.058	20	25
14	2	1.6	2.631	3.17	0.058	20	25
14	2	1.6	2.631	3.17	0.058	20	25
14	3	1.5	2.631	3.17	0.058	20	25
12	2	1.6	1.662	2.002	0.054	25	30
12	2	1.6	1.662	2.002	0.054	25	30
12	3	1.7	1.662	2.002	0.054	25	30
10	2	2	1.04	1.253	0.05	35	40
10	2	2	1.04	1.253	0.05	35	40
10	3	1.9	1.04	1.253	0.05	35	40
8	2	2.8	0.653	0.786	0.052	50	55
8	3	2.5	0.653	0.786	0.052	50	55
6	2	3.2	0.411	0.495	0.051	65	75
6	3	3.1	0.411	0.495	0.051	65	75
4	2	3.3	0.258	0.31	0.048	85	95
3	2	3.7	0.205	0.246	0.047	100	115
3	3	5.1	0.205	0.246	0.047	100	115
2	3	3.9	0.162	0.195	0.045	115	130

All dimensions are nominal and subject to normal manufacturing tolerances

Cable marked with this symbol is a standard stock item.

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NMD90 300V – Copper Conductors



APPLICATION

For exposed and concealed wiring in dry or damp locations.

CHARACTERISTICS

Voltage Rating U_0/U (Um)

300V

Temperature Rating

-25°C to 90°C

STANDARDS

CSA C22.2 No. 48, Nonmetallic sheathed cable

CSA C22.2 No. 38, Thermoset-insulated wires and cables

CSA C22.2 No. 2556, FT1 Vertical Propagation Flame Test

THE CABLE TEST

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SUSTAINABILITY COMMITMENT

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CONSTRUCTION

Conductor

Stranded Bare Soft Copper, ASTM B8

Insulation

Cross-linked Polyethylene (XLPE)

Bonding Conductor:

Stranded Bare Soft Copper, ASTM B8

Cable Assembly:

All conductors are cabled together

Jacket:

Polyvinyl Chloride (PVC)

Sheath Colour

● 3Core: Black, White, Red

NMD90 300V – Copper Conductors

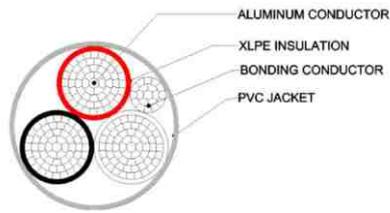
NMD90 Copper 300V CSA

Power Conductor		Bonding Conductor	Insulation Thickness		Jacket Thickness		Cable Overall Diameter		Cable Weight		Ampacity
Conductor Count	AWG	AWG	in	mm	in	mm	in	mm	lbs	kg	A
2	8/7	10/1	0.045	1.14	0.045	1.1	0.498	12.6	193	287	55
2	6/7	10/1	0.045	1.14	0.045	1.1	0.608	15.4	287	426	75
2	4/7	8/7	0.045	1.14	0.060	1.5	0.750	19.1	431	641	95
2	3/7	8/7	0.045	1.14	0.080	2.0	0.844	21.4	558	831	115
2	2/7	8/7	0.045	1.14	0.080	2.0	0.906	23.0	662	985	130
3	8/7	10/1	0.045	1.14	0.045	1.1	0.529	13.4	256	381	55
3	6/7	10/1	0.045	1.14	0.045	1.1	0.647	16.4	383	570	75
3	4/7	8/7	0.045	1.14	0.060	1.5	0.797	20.3	586	873	95
3	3/7	8/7	0.045	1.14	0.080	2.0	0.895	22.7	747	1112	115
3	2/7	8/7	0.045	1.14	0.080	2.0	0.962	24.4	899	1338	130

NOTE: Ampacity values based on CE Code Part I 2024, Table 4. Correction factors may apply
Dimensions and weights are nominal and subject to change without notice.

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NMD90 300V – Aluminum Conductors



APPLICATION

For exposed and concealed wiring in dry or damp locations.

CHARACTERISTICS

Voltage Rating U_0/U (Um)

300V

Temperature Rating

-25°C to 90°C

STANDARDS

CSA C22.2 No. 48, Nonmetallic sheathed cable
CSA C22.2 No. 38, Thermoset-insulated wires and cables
CSA C22.2 No. 2556, FT1 Vertical Propagation Flame Test

THE CABLE TEST

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SUSTAINABILITY COMMITMENT

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CONSTRUCTION

Conductor

Stranded AA-8000 Series Aluminum Alloy (ACM)

Insulation

Cross-linked Polyethylene (XLPE)

Bonding Conductor:

Stranded AA-8000 Series Aluminum Alloy (ACM)

Cable Assembly:

All conductors are cabled together

Jacket:

Polyvinyl Chloride (PVC)

Sheath Colour

● 3Core: Black, White, Red

NMD90 300V – Aluminum Conductors

NMD90 Aluminum 300V CSA

Power Conductor		Bonding Conductor	Insulation Thickness		Jacket Thickness		Cable Overall Diameter		Cable Weight		Ampacity
Conductor Count	AWG	AWG	in	mm	in	mm	in	mm	lbs	kg	A
8	10	10/1	0.045	1.14	0.045	1.1	0.535	13.6	123	183	45
6	8	10/1	0.045	1.14	0.045	1.1	0.651	16.5	183	272	55
4	6	8/7	0.045	1.14	0.060	1.5	0.776	19.7	275	409	75
2	6	8/7	0.045	1.14	0.080	2.0	0.936	23.8	404	601	100

NOTE: Ampacity values based on CE Code Part I 2024, Table 4. Correction factors may apply
Dimensions and weights are nominal and subject to change without notice.

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Dimensions and weights are nominal and subject to change without notice.

SOUTH
CABLE

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